REMARKS/ARGUMENTS

Examiner rejected claims 1, 3-9, 13-21, 25-28, and 32 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,219,697 (hereinafter "Lawande") in view of what was well known in the art as exemplified by AAPA.

Regarding Claim 1, the Office Action asserts that Lawande discloses a bus system comprising a dynamically configurable bus (i.e., IEEE 1394 serial bus), a first bus device on the bus at a first virtual address and a first physical address, a second bus device on the bus at a second virtual address and a second physical address, and a map of the first and second virtual addresses to the first and second physical addresses, respectively, encoded on a program storage medium (i.e., look-up table 198 in RAM 196), the map being accessible over the bus, wherein at least one of the first and second virtual addresses is a unique identifier (i.e., "unchangeable" network identifier). It is admitted in the Office Action that the unique identifier in Lawande is not a guaranteed unique identifier (GUID). However, it is further asserted in the Office Action that the GUID was well known in the art at the time of Applicant's filing, as evidenced by AAPA.

Applicant respectively asserts that the Office Action has mischaracterized certain aspects of Lawande in regard to at least two elements of Claim 1, rendering Lawande inapplicable as a basis for the rejection. Specifically, Applicant asserts that Lawande does not teach or suggest a bus device having a virtual address, as claimed in Claim 1. no virtual address

In a general sense, Lawande teaches a conversion technique between an internet protocol (IP) address within the network layer of an implementation of the open systems interconnection (OSI) communications model and a physical address of one or more devices residing on an IEEE1394 bus (Col. 12, Lns. 10-29). Applicant, on the

other hand claims the use of virtual addresses and a physical addresses within a map of a dynamically configurable bus. - which can be LAN or WAN, according to spec.

Furthermore, Applicant and Lawande disclose that the meaning of virtual address and IP address, respectively, are well known in the art. Therefore, one of ordinary skill in the art would appreciate that IP addresses and virtual addresses are not synonymous as appears to be asserted in the Office Action. Indeed, the definitions of "virtual address" and "IP address" are disparate. For example, one definition of an IP address is "the 32-bit host address defined by the Internet Protocol in STD 5, RFC 791." (http://wombat.doc.ic.ac.uk/foldoc/foldoc.cgi?virtual+address). A virtual address, on the other hand is defined as "memory (or device) location accessed by an application program in a system...such that intervening hardware and/or software maps the virtual address to real (physical) memory. During the course of execution of an application, the same virtual address may be mapped to many different physical addresses ..." (http://wombat.doc.ic.ac.uk/foldoc/foldoc.cgi?virtual+address)

Because a virtual address, as claimed by Applicant, is not the same thing as an IP address, as disclosed by Lawande, Lawande fails to teach or suggest a first and second bus device having a first and second virtual address.

Next, the Office Action essentially implies that a network identifier, as taught in Lawande, and a GUID are functionally synonymous, and since the GUID is known in the art, it would be obvious to replace a network identifier, disclosed in Lawande, with a GUID. Specifically, the Office Action asserts that the GUID claimed in Claim 1 is taught by an "unchangeable" (see Office Action) network identifier in Lawande. Lawande teaches no such unchangeable identifier. In fact, Lawande teaches just the opposite in regard to the virtual dress (i.e., IP address) of a IEEE 1394 device.

Although Lawande refers to the IP address as being "unchangeable" in various parts of the patent, Lawande also teaches that "The physical address of an IP interface...cannot by changed without bringing the IP interface down and then reinitial(izing it) with a new physical address." (Col. 3, Lns. 5-10). Therefore, the addressing scheme in Lawande must update **both** the virtual address (i.e., IP address) and the physical address (i.e., IEEE 1394 device address) upon the occurrence of a configuration event, such as reinitialization, resulting in greater querying and configuration overhead.

Applicant, on the other hand, claims, in view of Applicant's detailed description, a bus architecture that uses the unique and unchangeable quality of the GUID of various bus devices as a way to achieve dynamic bus reconfigurability by mapping the GUID of a device to its physical address. More particularly, Applicant claims the use of a GUID, to accomplish one of the disclosed objectives of maintaining a device's virtual address across a configuration event, such as powering on a bus, resetting a bus, or insertion/removal of a device on the bus (Pg. 9, Lns. 8-10 of Applicant's "Detailed Description") without incurring the querying and configuration overhead associated with retrieving and maintaining device logical **and** physical addresses, as taught by Lawande.

Indeed, the GUID claimed by Applicant in Claim 1 alleviates the need for querying device information on a configuration event, which can result in progation of addressing information and therefore substantial overhead (see Pg. 4, Lns. 5-10 of Applicant's "Background" section). Instead, **only** the physical address of a device need be updated in the map claimed by Applicant after a reconfiguration event, because the GUID is"...typically installed by the manufacturer and never changed afterward." (Pg.

11, Lns. 7-8 of Applicant's "Detailed Description"). In Lawande, on the other hand, **both** the IP address and the IEEE 1494 address of a device must be queried and reflected in the conversion table disclosed in Lawande.

Therefore, the Office Action incorrectly implies that the GUID claimed in Claim 1 is functionally synonymous with the network identifier taught by Lawande. Furthermore, nothing in the AAPA teaches or suggests that a GUID would be obvious to use for the purpose that Applicant discloses. Instead, Applicant has found a novel, non-obvious use for a device identifier used present in the art to accomplish a novel, non-obvious technique to, among other things, reduce the amount of configuration overhead associated with maintaining a dynamically configurable bus.

The Office Action similarly rejected independent Claim 13, 27, 33, and 40 as being unpatentable over Lawande in view of what was well known in the art as exemplified by AAPA. Accordingly, Applicant submits that these claims are in condition for allowance for the same or at least similar reasons as Claim 1. Furthermore, Applicant asserts that rejections to any dependent claims from the above independent claims are in condition for allowance, accordingly.

Applicant respectfully submits the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Erik Metzger at (408) 653-6612.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Erik M. Metzger
Registration No. 53,320
Phone No. (408) 720-8300

12400 Wilshire Blvd.
Seventh Floor
Los Angeles, CA 90025-1030